

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1-129. (canceled)

1 130. (original) An integrated circuit device comprising:
2 a circuit to convert an input value into a search value;
3 a first storage including content addressable memory (CAM) cells, compare lines
4 coupled to columns of the CAM cells and match lines coupled to rows of the
5 CAM cells, the compare lines being coupled to receive the search value;
6 a second storage coupled to the match lines of the first storage; and
7 a compare circuit coupled to an output of the second storage and coupled to receive
8 the input value.

1 131. (original) The integrated circuit device of claim 130 wherein the second storage
2 comprises an array of static random access memory (SRAM) cells.

1 132. (original) The integrated circuit device of claim 130 wherein the second storage
2 comprises an array of dynamic random access memory (DRAM) cells.

1 133. (original) The integrated circuit device of claim 130 wherein each of the CAM cells
2 comprises a compare circuit coupled to at least one of the compare lines and at least
3 one of the match lines.

1 134. (original) The integrated circuit device of claim 130 wherein the CAM cells within
2 a column of the CAM cells comprise respective compare circuits coupled to a

3 common pair of compare lines and to respective match lines.

1 135. (original) The integrated circuit device of claim 130 wherein the first storage further
2 includes word lines coupled to the rows of the CAM cells.

1 136. (original) The integrated circuit device of claim 130 further comprising a select
2 circuit having a first input port coupled to the word lines and a second input port
3 coupled to the match lines.

1 137. (original) The integrated circuit device of claim 136 wherein the second storage
2 comprises word lines coupled to an output of the select circuit.

1 138. (original) The integrated circuit device of claim 137 wherein the select circuit is
2 responsive to an operation select signal to select either a decoded row address
3 present on the word lines of the first storage or match signals present on the match
4 lines of the first storage to be output onto the word lines of the second storage.

1 139. (original) The integrated circuit device of claim 130 wherein the circuit to convert
2 the input value into a search value is a cyclic redundancy check (CRC) circuit that
3 generates a CRC value based on the input value, and wherein at least a portion of
4 the CRC value constitutes the search value.

1 140. (original) The integrated circuit device of claim 130 further comprising an interface
2 and an assembler circuit coupled to the interface, the assembler circuit being
3 configured to reorder selected bits within a value received via the interface to
4 generate the input value.

1 141. (original) The integrated circuit device of claim 130 wherein the circuit to convert
2 the input value comprises a mask circuit to mask selected bits in the input value.

1 142. (original) A content addressable memory (CAM) comprising:
2 a cyclic redundancy check (CRC) circuit to generate a CRC value; and
3 a CAM array having compare lines coupled to the CRC circuit to receive at least a
4 portion of the CRC value therefrom.

1 143. (original) The CAM of claim 142 wherein the CAM further comprises a mask
2 circuit to mask selected bits in the CRC value.

1 144. (original) The CAM of claim 143 further comprising a configuration circuit to store
2 a configuration value indicative of the selected bits to be masked within the CRC
3 value, the configuration circuit being coupled to the mask circuit to provide the
4 configuration value thereto.

1 145. (original) The CAM of claim 142 wherein the CRC value comprises N constituent
2 bits and wherein the at least a portion of the CRC value comprises M contiguous
3 bits of the CRC value, M being less than N.

1 146. (currently amended) A content addressable memory (CAM) comprising:
2 a CAM array including a plurality of CAM cells and a plurality of match lines
3 coupled to respective rows of the CAM cells;
4 a priority index table including a plurality of priority storage circuits coupled to
5 store respective priority values and coupled respectively to the plurality of

6 match lines; and

7 a multiplexer having a first input coupled to receive a selected priority value from
8 the priority index table, and a second input to receive a predetermined priority
9 value, to output a predetermined priority value in an operation to determine
10 where to store a first value within the CAM, and to output a selected priority
11 value from the priority index table in an operation to determine whether a
12 specified value is stored within the CAM.

1 147. (currently amended) The CAM of claim 146 wherein the priority values indicate
2 relative priorities of values stored within corresponding rows of the CAM cells.

1 148. (currently amended) The CAM of claim 146 wherein the multiplexer is responsive
2 to a select signal to output either the selected priority value or the predetermined
3 priority value, predetermined priority value indicates how filled the CAM array is.

149. (canceled)

1 150. (original) An integrated circuit device comprising:
2 means for converting an input value into a search value;
3 a first storage including means for generating a plurality of match signals that
4 indicate whether the search value matches respective values stored within the
5 first storage;
6 a second storage including means for outputting a value stored at a location within
7 the second storage indicated by the plurality of match signals; and
8 means for comparing the value output from the second storage with the input value.